



Photo: S. Gersh

MASSACHUSETTS BAYS NATIONAL ESTUARY PROGRAM

Estuaries: Where Rivers Meet the Sea



MassBays is leading an effort to locate and assess the impact of tide gates — like this one in Salisbury — on salt marshes.

A unique environment with many values, an estuary is a place where fresh water from rivers flows into the salt water of the sea. Estuaries offer protection from storm surge and flooding events, play a large role in improving water quality by removing pollutants and excess nutrients, and harbor countless species, many of which are commercially valuable. They also support a host of recreational uses such as boating, swimming, fishing, shellfishing, birding, and beach-going.

Despite these considerable values, estuaries are threatened in many ways, most of which are connected to human actions. Hundreds of years of expanding population and even more expansive development is taking a toll on the health of estuaries and their ecological integrity.

The Massachusetts Bays National Estuary Program

In 1987, Congress established the National Estuary Program (NEP) under the Clean Water Act to address problems facing these valuable coastal resources. Designated an NEP in 1990, the Massachusetts Bays National Estuary Program (MassBays) is dedicated to protecting, restoring, and enhancing the estuarine resources of Massachusetts Bay and Cape Cod Bay. MassBays facilitates partnerships to prompt local, state, and federal action and stewardship, convening stakeholders on the local and regional level, providing scientific basis for management decisions, and working with decisionmakers to identify problems and potential solutions.

“We envision a network of healthy and resilient estuaries, sustainable ecosystems that support the life and communities dependent upon them.”



Photo: NSRWA

Students collect water samples from the North River (Scituate) to test for bacteria.

Including more than 1200 miles of shoreline along Massachusetts and Cape Cod Bays, the 50 MassBays communities from Salisbury to Provincetown are home to more than 1.7 million people. Because of its large size and geographic diversity, the area is divided into five sub-regions, each served by a regional coordinator who works closely with communities and regional organizations to respond to local needs and assist with coastal planning and project implementation. MassBays is hosted by the Massachusetts Office of Coastal Zone Management within the Executive Office of Energy and Environmental Affairs.



Photo: L. Engler

Researchers deploy a net to count smelt in the Saugus River.

Massachusetts Bays National Estuary Program

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Partnering for Coastal Habitats

Convening Stakeholders

MassBays plays a significant role in convening stakeholders to support *coastal natural resource restoration*. Alongside state and federal agencies who carry out the construction efforts, we facilitate the human side of planning and restoration efforts across town lines. Recent projects include improving marshes and herring runs on Cape Cod, dam assessment on Third Herring Brook (South Shore), documenting the occurrence and extent of habitat in Boston Harbor (Metro Boston), responding to North River flooding in Salem Sound (Lower North Shore), and hydrologic assessment of the Great Marsh (Upper North Shore).

MassBays is also soliciting input at the local, regional, and state level to develop a new *Comprehensive Conservation and Management Plan*, the driving force behind every NEP. In 2015 we will submit a plan to EPA that: (1) identifies achievable goals and ways to measure progress, (2) lists strategic actions to be within a 5 to 8 year window, (3) provides a framework for education and outreach to multiple audiences, and (4) defines MassBays' contribution to larger, regional efforts.

Supporting Science-based Management

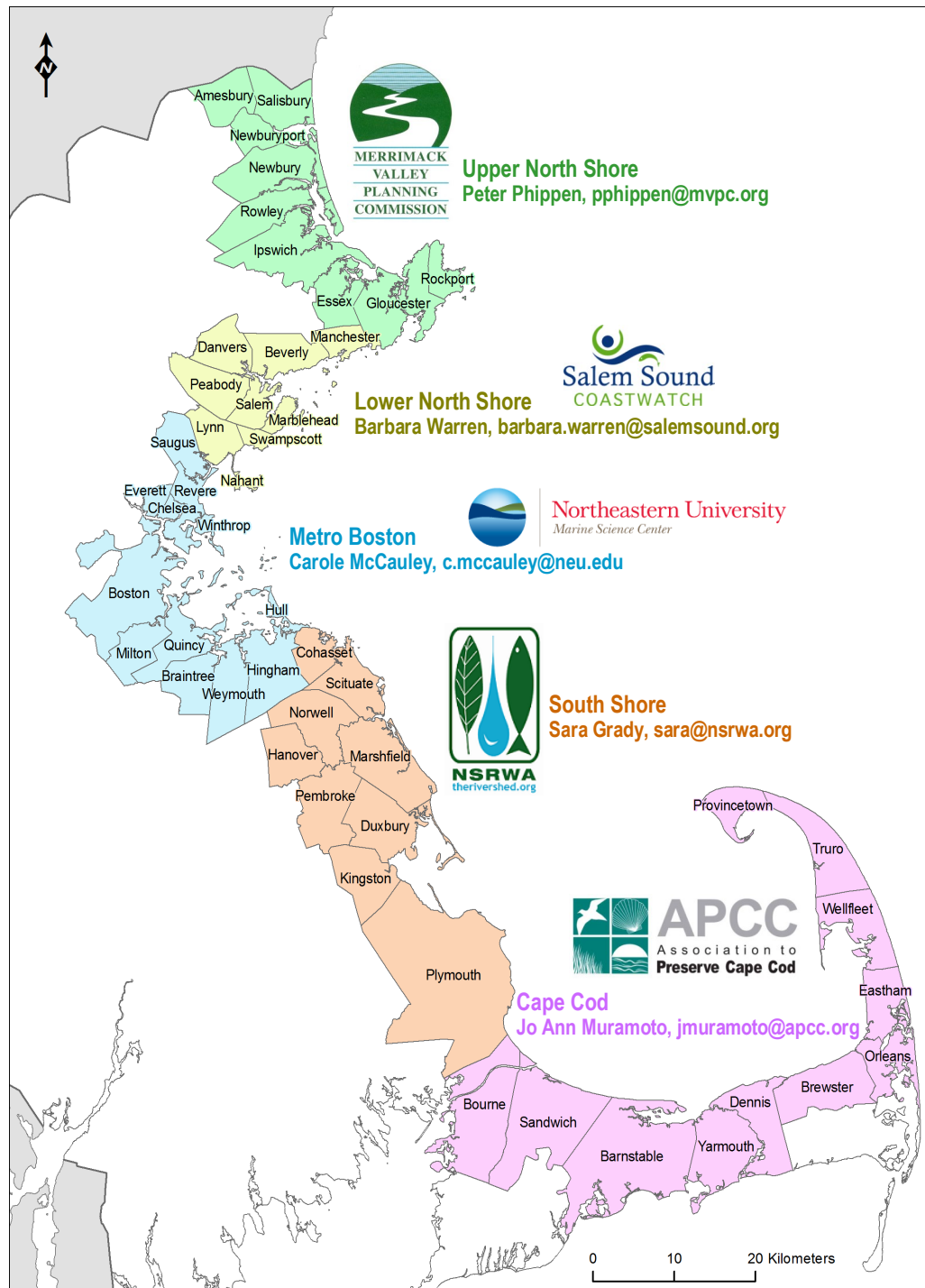
MassBays has defined stressors and natural resources in the 47 individual estuaries, or embayments, in our planning area. An interactive map on our website provides *online access to more than 500 reports*, assessments, and planning documents focused on those embayments produced over the past 15 years.

Our *Research and Planning Grants* program funds planning and research initiatives in our region that have direct impact on natural resource management. Extensive *field monitoring* led by our Regional Coordinators — of water quality, invasive species, fish migration, horseshoe crab spawning, and salt marsh restoration and health — provides data to partners in state agencies and across the Eastern United States.

Working with Decisionmakers

Habitat restoration and protection depend on well-informed decisionmakers. Through outreach efforts like *Greenscapes* (helping homeowners implement environmentally friendly landscaping practices), *lecture series* (about everything from climate change impacts to the importance of herring), and *direct technical training and support*, MassBays provides timely information to multiple audiences.

For more information, visit www.massbays.org



MassBays Regional Coordinators carry out on-the-ground programming, supported by EPA funding provided via MassBays to partner organizations in each region.